

News

Malaysia leads way in study of deforestation

Ecologists use project to devise guidelines on land conversion.

[Natasha Gilbert](#)



Ecologists in Malaysia will study a forest as it is converted into an oil palm plantation. SAEED KHAN/AFP/Getty Images

As Malaysia prepares to convert around 7,000 hectares of forest into an oil-palm plantation, ecologists are starting one of the biggest environmental projects ever run.

The ten-year-long Stability of Altered Forest Ecosystems project will be launched on 29 January in the forests of the Maliau Basin on the island of Borneo, where the study is based.

It is being funded with 30 million ringgits (US\$10 million), from Sime Darby, a Malaysia-based company involved in palm-oil production, and will look at changes to biodiversity and the resources and processes provided by the ecosystem as the forest is logged and replanted with oil palms.

"We are covering such a wide variety of questions," says Rob Ewers, an ecologist at Imperial College London and the project's scientific director. "Other projects have mainly focused on a single issue such as trees or biodiversity."

For instance, the project will look at which animal species survive in a forest as the level of logging intensifies until the land is fully converted into an oil-palm plantation. Researchers will also investigate how wide the riparian zone — the interface between land and rivers — needs to be so that the water is not polluted by eroded soil and fertilizers. They will also study how patches of conserved forest totalling 750 hectares contribute to the environmental effects of the logging.

Government backing

The local Malaysian government owns the land and decided to convert the forest into an oil-palm plantation to bring in extra income, says Ewers. It has strong ties with the science community and has agreed to collaborate on the project by conserving the patches of forest.

A main aim of the study is to develop guidelines on how to design and manage oil-palm plantations to minimize the environmental impacts.

"We want to use the data to optimally design future forest clearance for agricultural income and biodiversity. There is always a trade-off. But how can we design the landscape so as to maximize income and minimize environmental costs?" asks Ewers.

Researchers have already begun sampling birds and will begin to do the same for insects in February. Logging is due to start in the second half of the year, after which the oil palm will be planted.

Tim Killeen, an ecologist with Conservation International, a not-for-profit environmental group, says that he is "glad to see that someone is doing this study".

Killeen says that in the past, conservation efforts have mainly focused on creating protected areas, and that attention now needs to be paid to the remaining unprotected forests that are going to be exploited.

"We are expanding our vision to look beyond natural ecosystems and towards improving functional landscapes so they are not just making food, for example, but also providing ecosystem services. This kind of study looks at that question in a well organized way," he says.